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Claims

1. A fusion protein comprising
   i) A first polypeptide sequence derived from a lectin-complement pathway activating protein or a functional homologue at least 70% identical to said lectin-complement pathway activating protein, wherein said first polypeptide sequence is capable of activating the lectin-complement pathway; and
   ii) A second polypeptide sequence derived from a collectin or a functional homologue at least 70% identical to said collectin, wherein said second polypeptide sequence is capable of associating with one or more carbohydrates;
   wherein said complement activating protein is not a collectin.

2. The fusion protein according to claim 1, wherein said first polypeptide sequence is capable of associating with at least one MASP protein.

3. The fusion protein according to claim 1, wherein said first polypeptide sequence is capable of associating with a MASP protein selected from the group consisting of MASP-1, MASP-2 and MASP-3 or functional homologues or variants hereof.

4. The fusion protein according to claim 1, wherein the complement activating protein is a ficolin.

5. The fusion protein according to claim 4, wherein the ficolin is selected from the group consisting of L-ficolin, H-ficolin and M-ficolin.

6. The fusion protein according to claim 4, wherein the ficolin is L-ficolin.

7. The fusion protein according to any of claims 1 to 6, wherein said first polypeptide sequence comprises at least 10, such as at least 12, for example at least 15, such as at least 20, for example at least 25, such as at least 30, for example at least 35, such as at least 40, for example at least 50 consecutive amino acids of a complement activating protein or a sequence at least 70%, such as 80%, for example 90%, such as 95% identical thereto.

8. The fusion protein according to claim 1, wherein the first polypeptide sequence comprises the collagen-like domain of a ficolin or a functional homologue or variant thereof.

9. The fusion protein according to claim 1, wherein the first polypeptide sequence comprises the collagen-like domain of L-ficolin.

10. The fusion protein according to claim 1, wherein the first polypeptide sequence comprises the cysteine-rich region of a ficolin or a functional homologue thereof.

11. The fusion protein according to claim 1, wherein first polypeptide sequence comprises the cysteine-rich region of L-ficolin

12. The fusion protein according to claim 1, wherein the first polypeptide sequence comprises the cysteine-rich region and the collagen-like domain of a ficolin or a functional homologue or variant thereof.

13. The fusion protein according to claim 1, wherein first polypeptide sequence comprises the cysteine-rich region and the collagen-like domain of L-ficolin.

14. The fusion protein according to claim 1, wherein the first polypeptide sequence comprises amino acids 1-77 of the L-ficolin sequence of figure 1 (SEQ ID. NO 125).

15. The fusion protein according to claim 1, wherein the collectin is selected from the group consisting of MBL (mannose-binding lectin), SP-A (lung surfactant protein A), SP-D (lung surfactant protein D), BK (or BC, bovine conglutinin) and CL-43 (collectin-43).

16. The fusion protein according to claim 15, wherein the collectin is MBL.

17. The fusion protein according to any of claims 1 to 16, wherein said second polypeptide sequence comprises at least 10, such as at least 12, for example at least 15, such as at least 20, for example at least 25, such as at least 30, for ex-

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ample at least 35, such as at least 40, for example at least 50 consecutive amino acids of a collectin or a sequence at least 70%, such as 80%, for example 90%, such as 95% identical thereto.

18. The fusion protein according to claim 1, wherein the second polypeptide sequence comprises the CRD domain of a collectin or a functional homologue or vaiant thereof.

19. The fusion protein according to claim 1, wherein the second polypeptide sequence comprises the CRD domain of MBL.

20. The fusion protein according to claim 1, wherein the second polypeptide sequence comprises the neck region of MBL.

21. The fusion protein according to claim 1, wherein the second polypeptide sequence comprises the collagen-like domain of MBL.

22. The fusion protein according to claim 1, wherein the second polypeptide sequence comprises the neck region and the CRD domain of MBL.

23. The fusion protein according to claim 1, wherein the second polypeptide sequence comprises the collagen-like domain, the neck region and the CRD domain of MBL.

24. The fusion protein according to claim 1, wherein the second polypeptide sequence comprises amino acids 80-228 of the MBL sequence shown in figure 2 (SEQ ID. NO 126).

25. The fusion protein according to claim 1, wherein the fusion protein comprises the the cysteine-rich region and the collagen-like domain of L-ficolin and the CRD domain of MBL.

26. The fusion protein according to claim 1, wherein the fusion protein comprises the cysteine-rich region of L-ficolin and the collagen-like domain, the neck region and the CRD domain of MBL.

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27. The fusion protein according to claim 1, wherein the fusion protein comprises the amino acid sequence as defined by the sequence shown in figure 3 (SEQ ID. NO. 127), or a functional homologue at least 70% identical thereto.

28. The fusion protein according to claim 1, wherein the fusion protein consists of the amino acid sequence as defined by the sequence shown in figure 3 (SEQ ID. NO. 127).

29. An isolated nucleic acid comprising a nucleotide sequence encoding the fusion protein according to any of claims 1 to 28.

30. A vector comprising the nucleic acid sequence according to claim 29.

31. A cell comprising the vector according to claim 30.

32. The cell according to claim 31, wherein the cell is a mammalian cell.

33. The cell according to claim 31, wherein the cell is a non-mammalian cell.

34. A fusion protein according to any of claims 1 to 28 for use as a medicament.

35. A method of prevention and/or treatment of an infection in an individual in need thereof comprising administering to said individual the fusion protein according to any of claims 1 to 28.

36. The method according to claim 35, wherein the individual is a human being.

37. The method according to claim 35, wherein the individual is a human being suffering from an increased risk of acquiring an infection.

38. The method according to claim 35, wherein the individual is a human being with subnormal serum MBL level.

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39. The method according to claim 35, wherein the individual is a human being with normal serum MBL level.

40. Use of the fusion protein according to any of claims 1 to 28 for the preparation of a medicament for the prevention and/or treatment of an infection in an individual in need thereof.

41. The use according to claim 40, wherein the individual is a human being.

42. The use according to claim 40, wherein the individual is a human being suffering from an increased risk of acquiring an infection.

43. The use according to claim 40, wherein the individual is a human being with sub-normal serum MBL level.

44. The use according to claim 40, wherein the individual is a human being with normal serum MBL level.

45. A medicament for the treatment or prevention of a clinical condition in an individual in need thereof, comprising the fusion protein according to any of claims 1 to 28.

46. The medicament according to claim 45, wherein the clinical condition is an infection.

47. The medicament according to claim 45, wherein the individual is a human being.